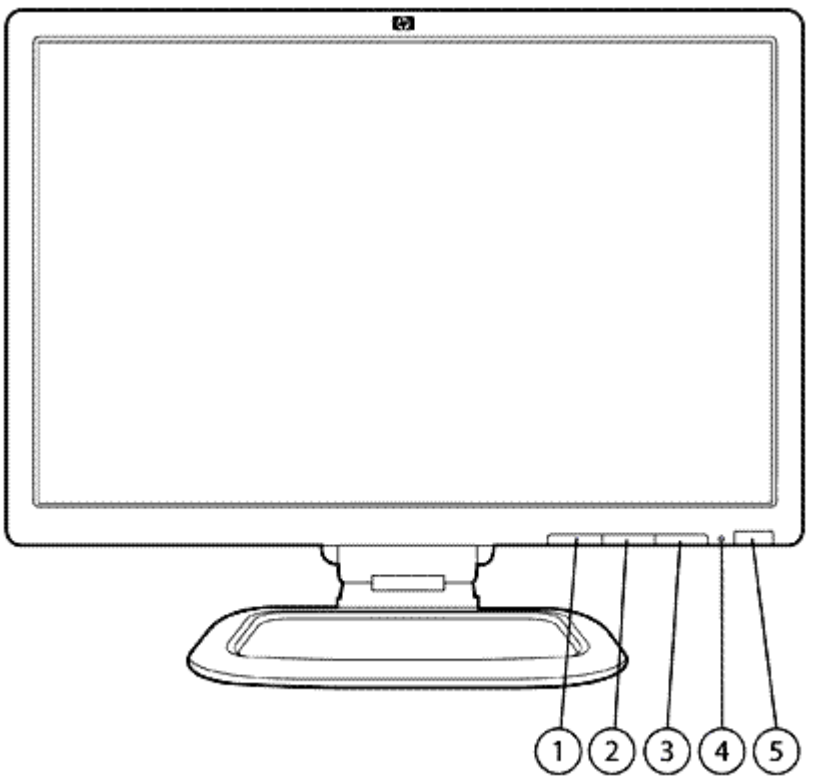
Overview



1. Menu / Select
2. "-"/Auto
3. "+"
4. Power LED
5. Power

Model

FL472AA

Technical Specifications

Panel	Type	22-inch Wide-Aspect Active Matrix TFT (thin film transistor)
	Viewable Image Area	22 in (55.9 cm) widescreen; diagonally measured
	Screen Opening (W x H)	18.8 x 11.8 in (47.8 x 30.0 cm)
	Panel Type	TN
	Aspect Ratio	16:10
	Viewing Angle (typical)	Up to 160° horizontal/160° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	300 nits (cd/m^2)
	Contrast Ratio (typical)*	1000:1
	Response Time (typical)*	5 ms (on/off)
	Pixel Pitch	0.282 mm
	Backlight Lamp Life (to half brightness)	30K hours
	Color Gamut	HP Vivid Color support (92% color gamut)
	*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
On Screen Display (OSD) Controls	Buttons or Switches	Input select/OSD UP, auto adjust/OSD down, OSD menu select, power
	Languages	English, French, German, Spanish, Italian, Dutch, and Japanese, S. Chinese Brazilian Portuguese
	User Controls	Brightness, contrast, positioning, color temperature (6500k, 9300k, custom), individual color control, serial number, display, clock, clock phase, monitor management, factory reset
Signal Interface/ Performance	Horizontal Frequency	24 to 83 kHz (VGA input); 24 to 83 KHz (DVI input for modes with pixel clock less than 165 MHz)
	Vertical Frequency	50 to 76 Hz (VGA input); 50 to 76 Hz (DVI input for modes with pixel clock less than 165 MHz)
	Native Resolution	1680 x 1050 @ 60 Hz (WSXGA+), 1.76 Million pixels
	Preset VESA Graphic Modes (non-interlaced)	1600 x 1000 @ 60 Hz 1440 x 900 @ 60 Hz 1280 x 1024 @ 60 Hz and 75 Hz 1280 x 960 @ 60 Hz 1152 x 900 @ 65 Hz 1024 x 768 @ 60 Hz and 75 Hz 800 x 600 @ 60 Hz and 75 Hz 640 x 480 @ 60 Hz and 75 Hz
	Text Mode	720 x 400 @ 70 Hz
	Mac Mode	1152 x 870 @ 75 Hz and 832 x 624 @ 75 Hz
	Sun Mode	1152 x 900 @ 76 Hz
	Maximum Pixel Clock Speed	165 MHz (analog input); 165 MHz (DVI input)

Technical Specifications

	User Programmable Modes	Yes, 15	
	Anti-Glare	Yes	
	Anti-Static	Yes	
	Default Color Temperature	6500 K	
Video/Other Inputs	Plug and Play	Yes	
	Self Powered USB 2.0 Hub	One upstream, two downstream ports (cable included)	
	Input Signal	VGA and DVI-D connectors; HDCP support	
	Input Impedance	75 ohms ± 10%	
	Sync Input	TTL separate synch	
	VGA Cable	15 pin D-sub VGA	
	VGA Cable Length	5.9 ft (1.8 m)	
Power	Input Power	Auto-Sensing, 100 to 240 VAC, 50 +/-3 Hz to 60 +/-3 Hz)	
	Frequency	47.5 to 63 Hz	
	Typical Power Consumption	45 watts (without speaker/with 50% USB)	
	Maximum	< 65 watts	
	Power Saving	< 2 watts standby; <1 watt off	
	Power Cable Length	6.2 ft (1.9 m)	
Mechanical	Dimensions (H x W x D)	Unpacked w/stand	14.6 to 19.72 x 20.27 x 11.86 in (37.09 to 50.09 x 51.48 x 30.12 cm)
		Unpacked w/o stand (head only)	13.59 x 19.72 x 2.36 in (34.52 x 51.48 x 6.0 cm)
		Packaged	16.42 x 24.09 x 8.82 in (41.7 x 61.2 x 22.7 cm)
	Weight	Head Only	10.67 lb (4.84 kg)
		Unpacked	17.02 lb (7.73 kg)
		Packaged	20.42 lb (9.27 kg)
	Tilt Range	-5° to + 35° vertical	
	Swivel Range	-45° to + 45°	
	Height Adjustable	Yes, range 5.12 in (13.0 cm)	
	Pivot Rotation	Yes	
	Base	Attachable, ships attached	
Environmental	Temperature - Operating	41° to 95° F (5° to 35° C)	
	Temperature - Non-operating	-29° to 140° F (-20° to 60° C)	
	Humidity - Operating	20% to 80% non-condensing	
	Humidity - Non-operating	5% to 95%, 38.7° C max wet-bulb	
	Altitude - Operating	+12,000 ft (3,658 m)	

	Altitude - Non-operating	+40,000 ft (12,192 m)
Environmental Data	Eco-Label Certifications and Declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • ENERGY STAR® • IT ECO declaration • TCO 03 • EPEAT™ Gold

Energy Consumption (in accordance with ENERGY STAR® test method)	AC Input Voltage at 100 VAC +/- 5 VAC, 50 Hz +/- 3 Hz	AC Input Voltage at 115 VAC +/- 5 VAC, 60 Hz +/- 3 Hz	AC Input Voltage at 230 VAC +/- 5 VAC, 50 Hz +/- 3 Hz
Normal Operation	33.67 watts	33.49 watts	33.74 watts
Sleep	0.810 watts	0.843 watts	0.750 watts
Off	0.741 watts	0.771 watts	0.711 watts

Heat Dissipation*	AC Input Voltage at 100 VAC +/- 5 VAC, 50 Hz +/- 3 Hz	AC Input Voltage at 115 VAC +/- 5 VAC, 60 Hz +/- 3 Hz	AC Input Voltage at 230 VAC +/- 5 VAC, 50 Hz +/- 3 Hz
Normal Operation	115 BTU/hr	115 BTU/hr	115 BTU/hr
Sleep	3 BTU/hr	3 BTU/hr	3 BTU/hr
Off	3 BTU/hr	3 BTU/hr	2 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Longevity and Upgrading	Upgradeability features contained in the product include: One upstream and two downstream USB ports
Ergonomics	The monitor meets the ergonomic requirement of EN-ISO 13406-2 for flat panel displays.
Additional Information	This product is in compliance with the Restrictions of Hazardous Substances (RoHS) Directive, 2002/95/EC. This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive, 2002/96/EC. This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see: www.epeat.net. Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043. Display meets the requirement for low frequency electromagnetic fields per TCO and prEN50279 A/B/C.

This product contains 28% recycled materials (by wt.)

This product is 98.7% recyclable when properly disposed of at end of life.

Packaging Materials

- External:
  - EPE-Expanded Polyethylene 30 g
  - PET 10 g
  - EPS (Expanded Polystyrene) 233 g

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

	Packaging	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
	Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications www.hp.com/hpinfo/globalcitizenship/environment productdesign/ecolabels.html ISO 14001 certificates: www.hp.com/hpinfo/globalcitizenship/environment/ operations/envmanagement.html
Options	HP Silver LCD Speaker Bar-Part number: EE418AA	Powered directly by the monitor or the PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP LCD monitors. Features include dual speakers with full sound range and external jack for headphones. Sold separately. For more information, refer to the HP Silver LCD Speaker Bar QuickSpecs.
	HP LCD Monitor Quick Release-Part number EM870AA*	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach a flat panel monitor to a variety of stands, brackets, arms or wall mounts. For more information, refer to this product's QuickSpecs document.

Technical Specifications

	HP Integrated Work Center Stand-Part number GN783AA	Allows mounting of a 17-, 19-, or 22-inch diagonal HP LCD monitor and an HP Compaq dc7800 or dc7900 Ultra-slim Desktop PC or HP t5000 series Thin Client on a single stand for the convenience of an "all-in-one" form factor. Sold separately. For more information, refer to this product's QuickSpecs document.
	HP Security Lock-Part number PC766A	Combines aircraft-grade steel and Kevlar fiber to securely lock down your monitor and help prevent theft.

* The HP Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) depending upon the mounting configuration used. Please note this is a total weight limit for all devices mounted, i.e. the combined weight of the monitor and a second device such an HP Compaq Thin Client cannot exceed 24 pounds. Because mounting surfaces vary widely and the final mounting method and configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.

Other	Accessories Included	VGA cable; DVI-D to DVI-D cable; USB cable, power cable, user CD ROM
	Software	HP Display Assistant is a software utility that enables theft deterrence and allows monitor adjustment, color calibration, and security/asset management using the Display Data Channel Command Interface (DDC/CI) protocol of the connected PC. HP Display LiteSaver allows you to schedule Sleep mode at preset times to help protect the monitor against image retention, drastically lower power consumption and energy costs, and extend the lifespan of the monitor. Pivot Pro software from Portrait Displays, Inc. interacts with your PC's native graphics driver to enable seamless portrait screen redraws with a simple mouse-click or keyboard command. Pivot Pro supports 90-degree portrait and landscape views. Language support is available in English, Japanese, French, German, Spanish, Italian, and Traditional and Simplified Chinese.
	User Guide Languages	English, B. Portuguese, French, LA Spanish, Korean, S. Chinese, T. Chinese, Bahasa, Japanese, Danish, Finnish, German, Norwegian, Spanish, Swedish, Greek, Polish, Russian, Slovenian, Turkish
	Warranty Languages	English, Canadian French, LA Spanish, Brazilian Portuguese, Danish, German, Castilian Spanish, French, Italian, Dutch, Norwegian, Finnish, Swedish, Bahasa Indonesian, Korean, T. Chinese, S. Chinese
	Color	All carbonite
	VESA External Mounting	Yes, standard 4 hole pattern, 100 mm
	Security Lock-Ready	Yes, one slot available
Certification and Compliance	TCO'03, ISO 13406-2 VDT Guidelines Approval, CISPR Requirements, VCCI Approvals, MIC (Korean) Requirements, CSA, Australian ACA Approval, "GS" Mark, TUV Approvals, CE Marking, FCC Approval, ENERGY STAR® qualified, PC-2001 Certified, Microsoft® Windows® Certification (Microsoft® Windows® 98, Microsoft Windows 2000, Microsoft Windows XP, and Windows Vista® Premium), EPEAT™ Gold	
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.	

Technical Specifications

Service and Warranty	Three years parts, labor, and on-site service. 24-hour, 90-day, toll-free technical support. Replacement options may include second business day on-site service, or next business day direct replacement, at HP's sole discretion.* With direct replacement, HP will ship a replacement display product directly to you. Using the prepaid shipping labels provided, return your failed display to HP in the same packaging as the replacement. Certain restrictions and exclusions apply. For details see your product warranty or contact HP Customer Support. * HP Care Pack Services extend service contracts beyond the standard warranties. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at: www.hp.com/hps/carepack. Service levels and response times for HP Care Packs may vary depending on your geographic location.

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